



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,542	11/05/2003	Shin-Ichi Kimmamoto	Q78238	6063

23373 7590 06/16/2005

SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

CHOI, LING SIU

ART UNIT	PAPER NUMBER
----------	--------------

1713

DATE MAILED: 06/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/700,542

Applicant(s)

KUMAMOTO, SHIN-ICHI

Examiner

Ling-Siu Choi

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 10-19 is/are pending in the application.
- 4a) Of the above claim(s) 1-4 and 15-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 10-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 10/320,428.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/05/2003</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. This Application is a Division of US Application No. 10/320, 428, filed December 17, 2002, now US Patent No. 6,680,360. Claims 5-9 were canceled. Claims 1-4 and 10-19 are now pending.

Election/Restriction

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-4, drawn to a process to produce a catalyst in the presence of a compound having -C-O-C-O-C- in a closed ring structure and a process to prepare a polymer, classified in class 502, subclass 125.
 - II. Claims 10-14, drawn to a process to produce a catalyst in the presence of a compound having -C-O-C-O-C- bond and 1,3-diether compound and a process to prepare a polymer, classified in class 502, subclass 126.
 - III. Claims 15-19, drawn to a process to produce a catalyst in the presence of a compound having -C-O-C-O-C- bond and a piperidine compound and a process to prepare a polymer, classified in class 502, subclass 123.
3. The inventions are distinct, each from the other because of the following reasons:

Inventions I, II, and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of

Art Unit: 1713

operation, different functions, or different effects (MPEP ' 806.04, MPEP ' 808.01). In the instant case the different inventions relate to different catalysts.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Mr. Patrick F. Gallagheron June 1, 2005, a provisional election was made with traverse to prosecute the invention of Group I, claims 10-14. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-4 and 15-19 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102

Art Unit: 1713

that form the basis for the rejections under this section made in this Office

action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

8. Claims 10-14 are rejected under 35 U.S.C. 102(a) as being anticipated by Kumamoto et al. (EP 1 138 701 A1).

A process to prepare a catalyst for α -olefin polymerization, comprising contacting		
1	a solid catalyst component	Ti, Mg, and a halogen
2	an organoaluminum compound	
3	a compound having a -C-O-C-O-C- bond, and	
4	a 1,3-diether compound	

(summary of claim 1)

Kumamoto et al. disclose a process to prepare a catalyst for ethylene polymerization, the process comprising the contact of (i) a solid catalyst component containing at least titanium, magnesium, halogen atoms, and an electron donor, (ii) an organoaluminum, and (iii) a heterocyclic compound, wherein the solid catalyst component is obtained by the contact of (a) a solid catalyst component precursor a magnesium atom, a titanium, and a hydrocarbyloxy group, (b) a halogen compound having a capability of halogenation, and (c) **an electron donor such as a diether** ([0019]; [0054]; [0058]; claims 1 and 3). Kumamoto et al. further disclose that

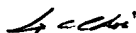
Art Unit: 1713

"[P]articularly preferred **heterocyclic compounds** are 4- to 8- membered compounds having a **-C-O-C-O-C- bond** " such as 1,3-dioxepane, 1,3-dioxane, 1,3-dioxolan, 2-methyl-1,3-dioxolan, 2,2-dimethyl-1,3-dioxolan, or 4-methyl-1,3-dioxolan ([0014]). Thus, the present claims are anticipated by the disclosure of Kumamoto et al.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reach on 571-272-1114.



LING-SUI CHOI
PRIMARY EXAMINER

June 5, 2005